IN THE CLAIMS:

1. (Currently amended) An optical system, comprising:

a window having a nonspherically curved outer surface and a curved inner surface;

a transmission optical corrector adjacent to the curved inner surface of the window and having an optical corrector shape responsive to a shape of the window, wherein the transmission optical corrector has a selectively nonuniform passive transmission optical property, wherein the optical property is a spatially varying index of refraction of the transmission optical corrector, ~~a spatially varying diffractive property of the transmission optical corrector,~~ or a spatially varying absorption property of the transmission optical corrector;

an optical train positioned such that the transmission optical corrector lies between the window and the optical train, wherein the optical train includes at least one optical element operable to alter an optical ray incident thereon; and

a sensor disposed to receive the optical ray passing sequentially through the window, the transmission optical corrector, and the optical train.

2. (Previously presented) The optical system of claim 1, wherein the optical property is the spatially varying index of refraction of the transmission optical corrector.

3. (Cancel)

4. (Previously presented) The optical system of claim 1, wherein the optical property is the spatially varying absorption property of the transmission optical corrector.

5. (Original) The optical system of claim 1, wherein the transmission optical corrector is a fixed optical corrector.

6. (Original) The optical system of claim 1, wherein the transmission optical corrector is a movable optical corrector.

7. (Original) The optical system of claim 1, wherein the sensor has a field of regard of at least about 10 degrees through the window, the transmission optical corrector, and the optical train.

8. (Original) The optical system of claim 1, wherein the window is a window in a flight vehicle.

9. (Original) The optical system of claim 1, wherein the sensor is a manufactured sensor.

10. (Original) The optical system of claim 1, wherein the sensor is a human eye.

11. (Original) An optical system, comprising:

a window having a nonspherically curved outer surface and a curved inner surface;

a transmission optical corrector adjacent to the curved inner surface of the window and having an optical corrector shape responsive to a shape of the window, wherein the transmission optical corrector has a selectively spatially varying index of refraction;

an optical train positioned such that the transmission optical corrector lies between the curved window and the optical train, wherein the optical train includes at least one optical element operable to alter an optical ray incident thereon; and

a sensor disposed to receive the optical ray passing sequentially through the window, the transmission optical corrector, and the optical train.

12. (Original) The optical system of claim 11, wherein the transmission

optical corrector is a fixed optical corrector.

13. (Original) The optical system of claim 11, wherein the transmission optical corrector is a movable optical corrector.

14. (Original) The optical system of claim 11, wherein the transmission optical corrector is an arch optical corrector made of transparent material having a curvature different from a curvature of the window.

15. (Original) The optical system of claim 11, wherein the sensor has a field of regard of at least about 20 degrees through the window, the transmission optical corrector, and the optical train.

16. (Currently amended) An optical system, comprising:

a window having a nonspherically curved outer surface and a curved inner surface;

a transmission optical corrector adjacent to the curved inner surface of the window and having an optical corrector shape responsive to a shape of the window, wherein the transmission optical corrector has a diffractive thereon;

an optical train positioned such that the transmission optical corrector lies between the curved window and the optical train, wherein the optical train includes at least one optical element operable to alter an optical ray incident thereon; and

a sensor disposed to receive the optical ray passing sequentially through the window, the transmission optical corrector, and the optical train, wherein the sensor has a field of regard of at least about 10 degrees through the window, the transmission optical corrector, and the optical train.

17. (Original) The optical system of claim 16, wherein the transmission optical corrector is a fixed optical corrector.

18. (Original) The optical system of claim 16, wherein the transmission optical corrector is a movable optical corrector.

19. (Original) The optical system of claim 16, wherein the transmission optical corrector is an arch optical corrector made of transparent material having a curvature different from a curvature of the window.

20. (Original) The optical system of claim 16, wherein the sensor has a field of regard of at least about 20 degrees through the window, the transmission optical corrector, and the optical train.

21. (New) The optical system of claim 16, wherein the window is a window in a flight vehicle.

22. (New) The optical system of claim 16, wherein the sensor is a manufactured sensor.

23. (New) The optical system of claim 16, wherein the sensor is a human eye.

24. (New) An optical system, comprising:

a window having a nonspherically curved outer surface and a curved inner surface;

a transmission optical corrector adjacent to the curved inner surface of the window and having an optical corrector shape responsive to a shape of the window, wherein the transmission optical corrector is a movable optical corrector, and wherein the transmission optical corrector has a diffractive thereon;

an optical train positioned such that the transmission optical corrector lies between the curved window and the optical train, wherein the optical train includes at least one optical element operable to alter an optical ray incident thereon; and

a sensor disposed to receive the optical ray passing sequentially through the

window, the transmission optical corrector, and the optical train.

25. (New) The optical system of claim 24, wherein the transmission optical corrector is an arch optical corrector made of transparent material having a curvature different from a curvature of the window.

26. (New) The optical system of claim 24, wherein the sensor has a field of regard of at least about 20 degrees through the window, the transmission optical corrector, and the optical train.

27. (New) The optical system of claim 24, wherein the window is a window in a flight vehicle.

28. (New) The optical system of claim 24, wherein the sensor is a manufactured sensor.

29. (New) The optical system of claim 24, wherein the sensor is a human eye.

30. (New) An optical system, comprising:

a window having a nonspherically curved outer surface and a curved inner surface;

a transmission optical corrector adjacent to the curved inner surface of the window and having an optical corrector shape responsive to a shape of the window, wherein the transmission optical corrector is an arch optical corrector made of transparent material having a curvature different from a curvature of the window, and wherein the transmission optical corrector has a diffractive thereon;

an optical train positioned such that the transmission optical corrector lies between the curved window and the optical train, wherein the optical train includes at least one optical element operable to alter an optical ray incident thereon; and

a sensor disposed to receive the optical ray passing sequentially through the window, the transmission optical corrector, and the optical train.

31. (New) The optical system of claim 30, wherein the transmission optical corrector is a fixed optical corrector.

32. (New) The optical system of claim 30, wherein the transmission optical corrector is a movable optical corrector.

33. (New) The optical system of claim 30, wherein the sensor has a field of regard of at least about 20 degrees through the window, the transmission optical corrector, and the optical train.

34. (New) The optical system of claim 30, wherein the window is a window in a flight vehicle.

35. (New) The optical system of claim 30, wherein the sensor is a manufactured sensor.

36. (New) The optical system of claim 30, wherein the sensor is a human eye.